

Basin and eco-regional approach to optimize the use of water and land resources

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Abstract

The paper presents the principles of justification of the boundaries and composition of ecoregions as hydrologically separate, integral natural and economic structures, within which a quantitative and qualitative assessment of the results of the geoplanning of integrated components of the territories of nature, population and economy on the basin principle can be most effectively carried out. The work included the integration of a number of approaches: basin-administrative, eco-regional and ecologically-oriented municipalities development through long-term systems of management of natural resources. The boundaries and composition of ecoregions were grounded, database for information support of the hierarchical classification of river basins from eco-regional positions was prepared. The efficiency of implementing the concept of basin organization of the territory was assessed, as well as its regulatory and legal support and practical implementation on the example of the territory of one of the subjects of the Russian Federation (Belgorod region), which will provide sustainable development of municipalities in modern conditions by harmonizing natural, economic, social and demographic processes on their territory at a basin-administrative system of management of natural resources.

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Keywords

Basin-administrative approach, Eco-regional approach, Geoplanning, Land monitoring, Management of natural resources, River basins, Water erosion, Zoning